

IN THE CLAIMS

LISTING OF CLAIMS

1. (Previously Presented) A method for processing control information in a wireless communication system via a shared control channel that includes encoded signaling information for a corresponding data transmission in another channel, the method comprising:

in the shared control channel, separately decoding a portion of the encoded signaling information; and

deriving transmission format information from the separately decoded portion of the encoded signaling information for the corresponding data transmission before a remainder of the encoded signaling information is decoded.

2. (Cancelled)

3. (Original) The method according to claim 1, wherein each of the plurality of mobile stations has a corresponding dedicated control channel, the method further comprising the step of:

at one of the plurality of mobile stations, receiving information in the dedicated control channel corresponding to that mobile station indicating to that mobile station that the encoded signaling information in the control channel is associated with a data transmission for that mobile station.

4. (Original) The method according to claim 1, wherein the encoded signaling information includes information selected from one or more of the groups consisting of transport format and resource-related information, hybrid automatic repeat request information, and cyclic redundancy check information.

5. (Original) The method according to claim 4, wherein the transport format and resource-related information includes the transmission format information.

6. (Original) The method according to claim 5, wherein the transmission format information includes information selected from one or more of the groups consisting of code information, modulation information, transport block set size information, and transport channel identification information.

7. (Original) The method according to claim 1, wherein the step of separately decoding a portion of the encoded signaling information is performed prior to the start of a transmission time interval corresponding to the data transmission.

8. (Original) The method according to claim 1, wherein the encoded signaling information is convolutionally coded and wherein a single set of tail bits are added to the encoded signaling information.

9. (Original) The method according to claim 1, wherein the encoded signaling information is convolutionally coded and wherein tail bits are selectively added to the encoded signaling information so that the portion of the encoded signal information that is separately decoded includes a subset of the total number of tail bits.

10. (Original) The method according to claim 9, further comprising the step of puncturing selected bits from the encoded signaling information.

11. (Original) The method according to claim 10, wherein the puncturing of bits from the portion of the encoded signaling information that is separately decoded is less than the puncturing of bits from the remaining encoded signaling information.

12. (Currently Amended) A method for processing information in a wireless communication system via a shared communications channel that includes encoded signaling information, wherein the encoded signaling information includes one or more portions of encoded information, the method comprising:

selectively puncturing bits from the encoded signaling information such that the number of bits punctured from certain of the one or more portions is less than the number of bits punctured from other portions; and

separately decoding the certain one or more portions of the encoded information to facilitate transmission in the wireless communication system.

13. (Previously Presented) A method for transmitting control information in a wireless communication system via a shared control channel that includes signaling information for a corresponding data transmission in another channel, the method comprising:

encoding the signaling information such that portions of the signaling information are separately encoded and one or more of the portions include transmission format information for the corresponding data transmission; and

transmitting the encoded signaling information via the control channel such that the transmission format information can be derived from the one or more portions before a remainder of the encoded portions are decoded.

14. (Previously Presented) A method for decoding control information in a wireless communication system via a shared control channel including at least one base station and at least one mobile station, the method comprising:

receiving coded information at a mobile station, wherein the coded information includes signaling information indicative of a transmission format that corresponds to a data transmission;

separately decoding a portion of the coded information prior to the data transmission.